UNITED STATES COAST GUARD
HEADQUARTERS TELECOMMUNICATIONS CENTER
WASHINGTON DC

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FM COMDT COGARD WASHINGTON DC//G-OP/G-OCC/G-OCS/G-SCT//
TO AIG ONE ONE NINE TWO NINE
COGARD CAMSLANT CHESAPEAKE VA
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COGARD COMMSTA KODIAK AK
INFO COGARD TISCOM ALEXANDRIA VA//SD/ENG/OPS/ENG3//
BT
UNCLAS //N16101//
SUBJ: COAST GUARD IMPLEMENTATION STRATEGY FOR GMDSS SEA AREA A2
A. COMDT COGARD WASHINGTON DC 091745Z OCT 98/TEMPORARY DISCONTINUANCE OF MEDIUM FREQUENCY (MF) DIGITAL SELECTIVE CALLING OPERATIONS (NOTAL)
1. INTRODUCTION. THE PURPOSE OF THIS MESSAGE IS TO OUTLINE THE COAST GUARD'S STRATEGY FOR INTEGRATING MF DIGITAL SELECTIVE CALLING (DSC) INTO OUR SHORESIDE INFRASTRUCTURE AND DECLARING GMDSS SEA AREA A2 OPERATIONAL. DSC IS PART OF THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) THAT WENT INTO EFFECT ON 1 FEBRUARY 1999, AND REPRESENTS A NEW METHOD OF DISTRESS ALERTING. GMDSS DIVIDES THE WORLD'S OCEANS INTO FOUR "SEA AREAS,"DESIGNATED "A1" THROUGH "A4." SEA AREA A1 IS DEFINED AS AN AREA COVERED BY VHF-FM COAST RADIO STATIONS PROVIDING CONTINUOUS DSC ALERTING SERVICES (TYPICALLY THIS AREA EXTENDS OUT TO 20NM OFFSHORE). THE INFRASTRUCTURE NECESSARY TO DECLARE SEA AREA A1 WILL BE PROVIDED BY THE NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION PROJECT (NDRSMP). SEA AREA A2 IS DEFINED AS AN AREA COVERED BY MF COAST RADIO STATIONS PROVIDING CONTINUOUS DSC ALERTING (TYPICALLY THIS AREA EXTENDS OUT TO 150NM OFFSHORE). THE INFRASTRUCTURE NECESSARY TO DECLARE SEA AREA A2 IS THE SUBJECT OF THIS MESSAGE. SEA AREA A3 IS AN AREA COVERED BY THE INMARSAT GEOSTATIONARY SATELLITES OR HF DSC (TYPICALLY GLOBAL COVERAGE FROM ABOUT 70N TO 70S LATITIUDE). THE U.S. CURRENTLY HAS THE NECESSARY INFRASTRUCTURE TO RESPOND TO HF DSC ALERTS IN SEA AREA A3. SEA AREA A4 IS DEFINED AS ALL AREAS OUTSIDE THE COVERAGE OF SEA AREAS A1, A2, AND A3 (TYPICALLY THE POLAR REGIONS). THERE IS NO REQUIREMENT FOR THE U.S. TO DECLARE SEA AREAS A3 AND A4, AS THESE REGIONS AUTOMATICALLY WENT INTO EFFECT ON 1 FEBRUARY 1999 FOR ALL NATIONS SIGNATORY TO THE 1988 SOLAS AMENDMENT ESTABLISHING GMDSS.
2. BACKGROUND. IN 1992, THE COAST GUARD DEVELOPED AND PROTOTYPED A STANDARD WORKSTATION II (SWII) BASED SYSTEM TO PROCESS HF AND MF DSC ALERTS. THE DECISION TO USE SWII WAS A CONSCIOUS ONE, BASED ON THE RECOGNITION THAT SERVICE-WIDE TRANSITION TO SWIII WOULD NOT BE COMPLETED BY THE DESIRED DATE TO DECLARE GMDSS SEA AREA A2 OPERATIONAL--1 FEBRUARY 1999. IN EARLY 1998, WITH HF AND MF INSTALLATIONS COMPLETED AT THE CAMS AND COMMSTAS, AND MF

INSTALLATIONS COMPLETED AT 9 OF THE 28 GROUPS SLATED TO RECEIVE IT, THE DECISION WAS MADE TO TRANSITION THE HF AND MF DSC ALERT PROCESSING SYSTEM TO ONE THAT WAS SWIII COMPATIBLE. THIS DECISION WAS BASED ON THE RECOGNITION THAT THE EXISTING SWII SYSTEM WOULD NOT BE SUPPORTABLE IN THE LONG TERM, AND LACKED THE FLEXIBILITY TO BE ECONOMICALLY MODIFIED TO MEET NEW OPERATIONAL REQUIREMENTS. AS OUR WATCHSTANDERS AT THE CAMS AND COMMSTAS BECAME MORE FAMILIAR WITH DSC, THEY EXPRESSED CONCERN OVER THE NUMBER OF HF ALERTS AND RELAYS BEING RECEIVED, AND IDENTIFIED CERTAIN SOFTWARE FEATURES THAT WOULD BE DESIRABLE IN A REPLACEMENT SYSTEM. AS A RESULT OF THIS INITIAL EXPERIENCE WITH HF DSC, COMDT (G-SCT AND G-OPR) ISSUED REFERENCE A, WHICH CALLED FOR THE TEMPORARY DISCONTINUANCE OF MF DSC OPERATIONS AT THOSE GROUPS WITH THIS EQUIPMENT. FURTHER SWII INSTALLATIONS AT GROUPS WERE HALTED AT THE SAME TIME, WHILE SYSTEM REPLACEMENT OPTIONS WERE EXAMINED.

3. CURRENT STATE. HF AND MF DSC (SWII) IS INSTALLED AND OPERATIONAL AT THE CAMS AND COMMSTAS. THE NINE COAST GUARD GROUPS THAT RECEIVED MF DSC EQUIPMENT (SWII) IN 1997 AND 1998 ARE NOT OPERATIONAL AS A RESULT OF REFERENCE A.

4. LONG TERM SOLUTION. WITH INPUT FROM FIELD UNITS, COMDT (G-OPR) IS FINALIZING OPERATIONAL REQUIREMENTS FOR A NEXT GENERATION HF/MF DSC ALERT PROCESSING SYSTEM. THIS NEW SYSTEM WILL BE SWIII COMPATIBLE AND WILL CONTAIN SOFTWARE FEATURES WHICH SHOULD ENHANCE THE USER'S ABILITY TO PROCESS INCOMING CALL DATA. AS PART OF THE REQUIREMENTS VALIDATION PROCESS, A COMMERCIAL-OFF-THE-SHELF DSC ALERT PROCESSING SYSTEM WILL BE INSTALLED AND EVALUATED AT GROUP EASTERN SHORE LATER THIS YEAR.

5. INTERIM SOLUTION. AS WE DO NOT EXPECT THE NEXT GENERATION SYSTEM TO BE FUNDED, DEVELOPED, AND DEPLOYED UNTIL 2002, WE MUST USE OUR EXISTING SWII SYSTEM DURING THE INTERIM. DSC IS AN INTERNATIONALLY RECOGNIZED DISTRESS ALERTING SYSTEM, AND--AS A PART OF THE GMDSS--IS NOW IN USE BY MARINERS WORLDWIDE. TISCOM HAS BEEN TASKED TO RESUME AND COMPLETE MF DSC INSTALLATIONS FOR ALL OF THE REMAINING GROUPS IN THE CONTINENTAL UNITED STATES ORIGINALLY SLATED TO RECEIVE THIS TECHNOLOGY. IN ADDITION, TISCOM HAS DEVELOPED A SOFTWARE PATCH FOR THE COAST GUARD'S SWII DSC SYSTEM THAT WILL ASSIST WATCHSTANDERS IN THE IDENTIFICATION OF DUPLICATE ALERTS, AND AUTOMATICALLY COMPILE DSC CALL STATISTICS. TISCOM WILL INSTALL THIS PATCH AT ALL GROUPS WITH THE MF DSC SYSTEM, EITHER IN CONJUNCTION WITH THE INITIAL INSTALLATION, OR BY RETROFITTING IT. ONCE THE SWII SYSTEM AND/OR PATCH ARE INSTALLED, TISCOM PERSONNEL WILL PROVIDE WATCHSTANDER FAMILIARIZATION TRAINING ON THE SYSTEM (TISCOM WILL RETURN TO ALL GROUPS THAT RECEIVED DSC IN 1997/98 TO PROVIDE REFRESHER TRAINING). FOLLOWING SYSTEM INSTALLATION AND FAMILIARIZATION TRAINING, A COAST GUARD REQUIREMENT TO GUARD DSC WILL BE IN EFFECT FOR THAT UNIT. THE TARGET DATE TO COMPLETE ALL INSTALLATIONS AND FOR THE COAST GUARD TO DECLARE SEA AREA A2 OPERATIONAL FOR THE CONTINENTAL U.S. IS 1 MARCH 2000.

6. SYSTEM INTEGRITY. THE INTEGRITY OF GMDSS SEA AREA A2 FOR THE U.S. IS DEPENDENT UPON MF DSC, WHICH IN TURN IS DEPENDENT UPON THE COAST GUARD'S EXISTING MF COMMUNICATIONS NETWORK. OPERATIONAL COMMANDERS ARE URGED TO DOCUMENT ANY KNOWN OR SUSPECTED PROBLEMS WITH
EXISTING MF INFRASTRUCTURE OR EQUIPMENT, TO ENSURE THAT THESE PROBLEMS CAN BE RESOLVED PRIOR TO THE DECLARATION OF GMDSS SEA AREA A2.

7. WORKLOAD ISSUES. WE ARE MINDFUL OF THE LEGITIMATE CONCERNS OF FIELD UNITS OVER THE WORKLOAD POTENTIAL OF DSC. INITIAL FEEDBACK FROM GROUPS THAT HAVE RECENTLY HAD THIS EQUIPMENT INSTALLED, AND ARE CURRENTLY MAINTAINING A DSC GUARD, VALIDATES OTHER EVIDENCE THAT SUGGESTS MF DSC WILL NOT REPRESENT A SIGNIFICANT WORKLOAD INCREASE FOR GROUPS. FROM NOVEMBER 1998 TO MAY 1999, CAMSLANT HAS DOCUMENTED A 400% DECREASE IN THE RATIO OF RELAYS TO ALERTS FOR HF DSC CALLS. THIS IS MOST LIKELY ATTRIBUTABLE TO MARINERS BECOMING MORE FAMILIAR WITH THIS TECHNOLOGY AND THE CORRECT PROTOCOLS ASSOCIATED WITH IT. THE NUMBER OF MF DSC CALLS RECEIVED AT CAMSLANT, AS COMPARED WITH HF DSC CALLS, REMAINS LOW. THE U. S. COAST GUARD RECENTLY ISSUED A NOTICE TO MARINERS, ADVISING INTERNATIONAL USERS OF DSC ON PROPER RESPONSE PROTOCOLS, SUCH AS THE PROPER METHOD OF ADDRESSING RELAYS, AS WELL AS PROCEDURES ON CANCELING INADVERTENT DSC ALERTS. THE FEATURES DESIGNED INTO THE SWII PATCH ARE INTENDED TO BOTH ASSIST WATCHSTANDERS IN IDENTIFYING DUPLICATE CALLS, AND CAPTURE DATA ON DSC WORKLOAD. FIELD UNITS ARE ENCOURAGED TO PROVIDE SPECIFIC FEEDBACK ON DSC AND ITS IMPACT ON OPERATIONS TO COMDT (G-OPR) VIA THE CHAIN OF COMMAND.
8. RESPONSE POLICY. DETAILED GUIDANCE ON SMC DETERMINATION AND THE COAST GUARD'S RESPONSE POLICY FOR DSC DISTRESS ALERTS IS BEING ISSUED CONCURRENTLY VIA SEPARATE MESSAGE.
9. THIS MESSAGE HAS BEEN COORDINATED WITH G-SCT.
10. INTERNET RELEASE AUTHORIZED.
11. RELEASED BY RADM TERRY M. CROSS, DIRECTOR OF OPERATIONS POLICY.
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